

ACTA HISTOCHEMICA ET CYTOCHEMICA

*Official Journal of the Japan
Society of Histochemistry and Cytochemistry*

Volume 17

Kyoto

1984

**Published bimonthly by
the Japan Society of Histochemistry and Cytochemistry**

Acta histochem. cytochem.

ACHCBO

ACTA
HISTOCHEMICA
ET
CYTOCHEMICA

COPYRIGHT ©, THE JAPAN SOCIETY OF HISTOCHEMISTRY
AND CYTOCHEMISTRY

TABLE OF CONTENTS VOLUME 17, 1984

No. 1, 1984

MASAHIRO SAKAI AND KAZUO OGAWA. Relationship Between Lysosomal Wrapping Mechanism (LWM) and Cytoskeletal Elements During Autophagolysosome Formation	1
YUTAKA TSUTSUMI. Leu 7 Immunoreactivity as Histochemical Marker for Paraffin-Embedded Neuroendocrine Tumors	15
KOUTA YAMAMOTO, HIROSHI MAYAHARA AND KAZUO OGAWA. Cytochemical Localization of Ouabain-Sensitive, K-Dependent <i>p</i> -Nitrophenylphosphatase in the Rat Hepatocyte	23
KAZUYOSHI MIYATA, MASUMITSU TAKASUGI AND MASA-OKI YAMADA. Biparametric Fluorometry of Chlorotetracycline and Ethidium Bromide in DNA Structure	37
CARLO PELLICCIARI, CARLO A. REDI, SILVIA GARAGNA, MASARU FUKUDA AND MARIA G. MANFREDI ROMANINI. Cytochemical Patterns of Mouse Sperm Chromatin During the Passage Along the Female Genital Tract	51
SHIGERU KATSURA, HIROSHI ISHIZUKA AND HAYASHI MATSUMOTO. Histochemical Studies on the Architecture of Rat Lateral Pterygoid Muscle	59
TSUYOSHI SOJI. Cytochemical Studies on Their Alkaline Phosphatase (ALPase) and Adenosine Triphosphatase (ATPase) Activities in Folliculo-Stellate Cells of Rat Anterior Pituitary	69
JUN MIYAUCHI. Distribution and Subcellular Localization of Lactoferrin in Human Tissues with Special Reference to the Submandibular Gland	77

No. 2, 1984

SHASHI WADHWA AND V. BIJLANI. Ultrastructural and Histochemical Observations on Innervation of Developing Human Urinary Bladder	93
MOTOHIRO OGURA, NOBUO IHARA AND RYUEI MAEDA. Silver Bromide Method as Modified for Electron Microscopic Demonstration of Ethylenic Double Bonds Existing in Ceroid-Like Pigment Bodies	101
AKIKO SETO-OHSHIMA, HIROOMI KEINO, SATOKO KITAJIMA, MAMORU SANO AND AKIRA MIZUTANI. Developmental Change of the Immunoreactivity to Anti-Calmodulin Antibody in the Mouse Brain	109
TAKERU FUJII, MASAYUKI SHONO AND YASUO KISHINO. Quantitative-Histochemical Studies on 4^{α} -3 β -Hydroxysteroid Dehydrogenase and Glucose-6-Phosphate Dehydrogenase Activities in the Adrenal Cortex of Female Rats During the Estrous Cycle	119
MASANORI MURAKOSHI, YOSHIYUKI OSAMURA, SHINICHI YOSHIMURA AND KEIICHI WATANABE. Intramitochondrial Localization of Glutathione-Peroxidase (GSH-PO) in the Rat Adrenocortical Cells	127
MASANORI MURAKOSHI, YOSHIYUKI OSAMURA, SHINICHI YOSHIMURA AND KEIICHI WATANABE. Immunohisto-Cytochemical Localization of Rat Adrenocortical Glutathione-Peroxidase (GSH-PO) —Studies on Aminoglutethimide (Elipten) and 4-Amino-Pyrazolopyrimidine (4-APP) Administration—	139

**Twenty-fourth Annual Meeting of the Japan Society of Histochemistry and
Cytochemistry, Nagoya, October 27-28, 1983**

Symposium: Histochemistry of Neurons and Paraneurons

IKUKO NAGATSU, NOBUYUKI KARASAWA, YUKARI KAWAKAMI AND MASAMI YOSHIDA. Studies on Monoamine-Containing Neurons by Immunoenzyme-Histochemistry and Immunohistochemistry with Special Reference to Goldfish Brain.....	151
R. YOSHIYUKI OSAMURA AND PAUL K. NAKANE. Hypothalamic ACTH-Related Peptides Containing Cells vs Pituitary ACTH Cells.....	161
YASUHIKO IBATA, EIJI KOYAMA, FUMIO KAWAKAMI AND HITOSHI OKAMURA. Distributional Patterns of Peptide Neurons in the Paraventricular Nucleus of the Rat Hypothalamus	171
TOSHIHIRO MAEDA, HIROSHI KIMURA, TOSHISABURO NAGAI, HARUMICHI IMAI, RYOHACHI ARAI, TETSURO SAKUMOTO, KAZUYA SAKAI, KUNIO KITAHAMA AND MICHEL JOUVET. Histochemistry of the Magnocellular Neurons in the Posterior Hypothalamus, with Special Reference to MAO Activity and Ability of 5HTP Uptake Decarboxylation	179
ANNOUNCEMENT	194

No. 3, 1984

KEI-ICHI HIRAI, TADASHI UYEDA AND KAZUO OGAWA. Electron-Cytochemical Studies on the Differentiation of Mouse Lung Alveolar Epithelial Cells with Special Reference to Changes in Mitochondria.....	197
HIDEYUKI GOTO, MASAHIITO WATANABE, RYOICHI SHIMONO AND TAKASHI KIHARA. The Distribution of Radioactive Carbon from [U- ¹⁴ C] Glucosamine in Mice	213
MITSUAKI SUZUKI, MASATOSHI OGAWA, TARO TAMADA, HIROSHI NAGURA AND KEIICHI WATANABE. Immunohistochemical Localization of Secretory Component and IgA in the Human Endometrium in Relation to Menstrual Cycle	223
JUNKO UCHIYAMA, AKIRA KOSHIRO AND SUSUMU TOMONAGA. Binding of Pepsin-Treated Human Immunoglobulin to the Bacterial Cell Surface: An Immunocytochemical Study.....	231
MASACHIKA SENBA. Histologic Staining Methods for Hepatitis B Surface Antigen (HBs Ag) and Interpretation of Dye Reactions in vitro	241
MAMORU SANO, KANEFUSA KATO, AKIKO SETO-OHSHIMA AND AKIRA MIZUTANI. Immunocytochemical Localization of S-100 Protein and Calmodulin in C6 Glioma Cells	251
RYOICHI SHIMONO, MASAHIITO WATANABE, NARUTO KUNO AND TAKASHI KIHARA. Distribution of N-Acetyl [4,5,6,7,8,9- ¹⁴ C] Neuraminic Acid in Mice Studied by Whole-Body Autoradiography	259
TOMOICHI ISHIKAWA AND HARUMICHI SEGUCHI. Mg ⁺⁺ -Dependent Adenosine Triphosphatase Activity in Preimplantation Mouse Embryos.....	269
Letters to the Editor:	
TOSHIHIKO MIYAKE. Identification of Neonatal Brain Macrophages by Lectin-Histochemistry	279

KACHIO TASAKA, MAKIO KOBAYASHI, TOSHIZO TANAKA AND CHIYOKO INAGAKI. Rapid Purification of Monoclonal Antibody in Ascites by High Performance Ion Exchange Column Chromatography for Diminishing Non-Specific Staining	283
NOBORU YAMAMOTO. Immunoelectron Microscopic Localization of Calmodulin with Protein A-Gold Technique	287
ANNOUNCEMENT	293

No. 4, 1984

MASAHICO NAKAMURA, MASAYA ODA, YOSHIKAZU YONEIL NOBUHIRO TSUKADA, NORIHITO WATANABE, HIROKAZU KOMATSU AND MASAHARU TSUCHIYA. Demonstration of the Localization of Muscarinic Acetylcholine Receptors in the Gastric Mucosa	297
HIROSHI MATSUDA, HISAO FUJITA, KAZUNORI ISHIMURA AND YOSHIO OSAWA. Immunocytochemical Localization of Aromatase in Ovaries of Some Rodents, Cow and Human	311
FUMIAKI NISHIYAMA, KUNIAKI TAKATA AND HIROSHI HIRANO. Mg^{2+} -ATPase Activity during Endocytosis of Cationized Ferritin in Mouse Macrophages—A Double Labeling Study.....	323
TADANOBU BAN, KAZUNORI ISHIMURA, HISAO FUJITA, KENJI SOBUE AND SHIRO KAKIUCHI. Immunocytochemical Demonstration for Caldesmon and Actin in the Striated and Smooth Muscle Cells and Non-Muscular Cells of Various Organs of Rats.....	331
HISAKO TANAKA, SATOSHI TAKASAKI, TETSUYA MUROYA, TERUO SUZUKI AND EISEI ISHIKAWA. The Distribution and Possible Significance of Natural Killer Cells (HNK-1 ⁺ -Cell) in the Human Spleen.....	339
ISAMU TAKAGI, KEIKI YAMADA, NOBUYUKI KARASAWA AND IKUKO NAGATSU. Immunohistochemical Localization of Tyrosine Hydroxylase and Calcitonin in the Ultimobranchial Body of the Grass Parakeet	359
INMACULADA SÁNCHEZ-AGUAYO, JOSEFINA HIDALGO, FELIPE CORTES AND JOSE LUIS LÓPEZ-CAMPOS. Ultrastructural Localization of Acid Phosphatase Activity in the Kidney Sac Nephrocytes of <i>Helix Aspersa</i>	371
F. J. MORENO, J. PIÑERO, R. COVEÑAS AND J. L. LÓPEZ-CAMPOS. Enzymatic Response to HCl Inhibition in Oxyntic Cells of Fasting Rats.....	379
YUKARI KAWAKAMI-KONDO, MASAMI YOSHIDA, NOBUYUKI KARASAWA, KEIKI YAMADA, ISAMU TAKAGI, TAKAKO KONDO AND IKUKO NAGATSU. Ontogenetic Study on the Monoamine and Peptide Containing Cells in the Pituitary and Hypothalamus of the Bullfrog <i>Rana Catesbeiana</i> by Immunohistochemistry	387
KYUNG-HWA. HYUN, SHINICHIRO SUMITOMO, SHIN FUKUI AND MASAHICO MORI. Lectin-binding Histochemistry of <i>Verruca Vulgaris</i> and Seborrheic Keratosis	399
D. N. VISHNOI AND S. NARAIN. Changes in Esterase Activity in the Spinning Gland Cells of <i>Diaeris obliqua</i> (Lepidoptera) During Sequential Stages of Development	415
TATSUYA TAKANO, KIMIKO AMANUMA-MUTO, TSUNEO IMANAKA AND SHOJI OHKUMA. Cinemicrophotographic Observation of Aortic Foam Cells Containing Anisotropic Lipid Inclusions	421

SHIGERU ENTANI, ETSUO CHIHARA, SATOKI UENO AND HIROYUKI OKAMOTO. Distribution of Sulfhydryl and Disulfide Groups in Ocular Tissues	427
TORU NODA AND KAZUO OGAWA. Golgi Apparatus is One Continuous Organelle in Pancreatic Exocrine Cell of Mouse	435
Letter to the Editor	
KAZUSHI FUJIMOTO, KAZU SHIGE OGAWA AND KAZUO OGAWA. Direct Visualization of the Hydrophilic Channel in the Gap Junction under an Electron Microscope Using Alkali-Metal Ions	453
ANNOUNCEMENT	457

No. 5, 1984

RYOICHI SHIMONO. Whole-body Autoradiographic Study on the Distribution of [U- ¹⁴ C]Galactose in Adult, Pregnant, Newborn and Infant Mice	461
MASANORI MURAKOSHI, YOSHIYUKI OSAMURA, SHINICHI YOSHIMURA AND KEIICHI WATANABE: Correlation between Intramitochondrial Localization of Glutathione-peroxidase (Mitochondrial GSH-PO) and Steroidogenesis in the Rat Adrenocortical Cells	491
RYOICHI SHIMONO, MASAHISA SHIMADA, HIROKI S. OZAKI, TOMIO IMAHAYASHI AND TETUhide H. MURAKAMI. Alterations of Local Cerebral Blood Flow during Hypoxic Hypoxia; ¹⁴ C-Iodoantipyrine Autoradiographic Study	499
KYUNG-HWA HYUN, MATSUJI HOSAKA, SHIN FUKUI AKITOSHI SUGIMOTO AND MASAHICO MORI. Lectin-binding Sites in Basal Cell Epitheliomas and Carcinomas	507
MASAYOSHI TACHIBANA, HIROYUKI MORIOKA, TAKASHI TSURUOKA, MITSUO MACHINO AND OSAMU MIZUKOSHI. Ultrastructural Localization of Lysozyme in the Human Nasal Gland by Protein A-Gold Technique	525
TAKERU FUJII AND YASUO KISHINO. Microphotometric Study of Δ^5 - 3β -Hydroxysteroid Dehydrogenase in the Ovaries of Rats Fed on High Fat Diets in Relation to 7,12-Dimethylbenz(a)-Anhracene Mammary Tumors	533
TOSHIRO ONO AND MICHIMASU AWAI. Endocytic Mechanism of Macrophages to Anionic Foreign Substances	547
TERUO TANAKA, AKIRA SAKANO AND AKIRA TAKAHASHI. Immunohistochemical Localization of Epidermal Growth Factor in the Intercalated Duct Secretory Granules of the Submandibular Glands of Adult Female A/J Mice	565
YOSHIKI NAKAMURA, AYAO HIRASHITA AND YOSUKE KUWABARA. The Localization of Acid Phosphatase Activity in Osteoblasts Incident to Experimental Tooth Movement	571
YOSHIO HACHISUKA. A Cytochemical Study of Benign and Malignant Cartilaginous Tumors	583
GERD PÖEGGEL AND HANS LUPPA. Problems of Light Microscopical Adenylate Cyclase Demonstration in Rat Cerebellum with Adenylyl Imidodiphosphate	603

No. 6, 1984

HIROMI KEINO, KOJI SHIMIZU AND AKIRA MIZUTANI. Fine Structural Study of Acid Phosphatase Activity in the Kupffer Cells of Anemic Mice.....	615
NOBUYUKI ABE, YOSHITERU KATSUKURA, NOBUYUKI WATABE AND TAKESHI TSUCHIYA. Fibronectin and Type I Collagen Distribution in Primary Stage of Experimental Hepatic Fibrosis	623
KYUNG-HWA HYUN, NORIYASU MURASE, HIROSHI MITANI AND MASAHICO MORI. Histochemical Expression of Lectin Binding in Papillomas.....	631
NOBUO IHARA AND SHUJI FUNO. Ultrastructural Demonstration of NADPH Oxidase Activity in Kupffer and Endothelial Cells Using an Isolated Liver Perfusion System —Comparison between ICR/D-Strain and JCL: Wistar-Strain Rats—	649
YOSHIE SUGIURA AND VINCI MIZUHIRA. Strong Affinity of Estradiol and Its Ligands for Eosinophilic Leucocytes in the Rat and Mouse Uteri during the Estrous Cycle	665
Twenty-fifth Annual Meeting of The Japan Society of Histochemistry and Cytochemistry, Kyoto, October 29-31, 1984	
Special Address	
TSUKASA ASHIHARA. Quantitative Cytochemistry: Microscope-Based Cytofluorometry and Its Application to the Analysis of Human Cancer Cells.....	681
HISAYUKI MATSUO. In Search of the Unidentified Bioactive Peptides.....	683
T. H. SCHIEBLER. Influence of Sex Hormones on Lysosomes and Lysosomal Enzymes in Proximal Tubule Cells of the Rat Kidney.....	684
ANN-JUDITH SILVERMAN. Ultrastructural Analysis of the Synaptic Input to Neurosecretory Neurons	685
HARALD F. TEUTSCH. Functional Liver Cell Heterogeneity.....	687
H. LUPPA AND J. ANDRA. Carboxylester Hydrolases—Histochemical Demonstration and Functional Significances.....	688
KENJIRO YASUDA. Immunohistochemistry with Monoclonal Antibodies: A Comparison to That with Polyclonal Antibodies	689
Abstracts of General Session.....	691
ANNOUNCEMENT	737
Author Index.....	742
Subject Index.....	744